WHAT IS CLAIMED IS:

1. A ceramic dynamic-pressure bearing comprising:

a first member formed of ceramic and having a cylindrical outer surface, a second member formed of ceramic and having a cylindrical reception hole formed therein, the first member being inserted into the reception hole of the second member in such a manner as to be rotatable, relative to the second member, about an axis, and a thrust plate formed of ceramic facing at least one end face of the second member as viewed along the axis of rotation, the end face of the second member and a face of the thrust plate in opposition to the end face serving as thrust dynamic-pressure gap definition surfaces so as to define a thrust dynamic-pressure gap therebetween; and

the ceramic dynamic-pressure bearing satisfies at least one of the following requirements (i) to (vi):

(i) the thrust dynamic-pressure gap definition surface of the second member which faces the thrust plate has a flatness of not greater than 3 μm;

(ii) the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member has a flatness of not greater than 3 μm;

(iii) the thrust dynamic-pressure gap definition surface of the second member which faces the thrust plate and the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member have a

total flatness of not greater than 3 μm;

(iv) the thrust dynamic-pressure gap definition surface of the second member which faces the thrust plate is crowned such that an inner circumferential portion thereof projects by an amount greater than 0 μm and not greater than 2.5 μm with respect to an outermost circumferential portion thereof;

(v) the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member is crowned such that an inner circumferential portion thereof projects by an amount greater than 0 μm and not greater than 2.5 μm with respect to an outermost circumferential portion thereof; and

(vi) a clearance between the mutually facing thrust dynamic-pressure gap definition surfaces of the second member and the thrust plate is greater than 0 μm and not greater than 2.5 μm as measured at outermost circumferential portions of the thrust dynamic-pressure gap definition surfaces.

2. The ceramic dynamic-pressure bearing as claimed in claim 1, wherein an inner surface of the reception hole of the second member and an outer circumferential surface of the first member to be received inside the

inner surface serve as radial dynamic-pressure gap definition surfaces, which define a radial dynamic-pressure gap therebetween.

3. The ceramic dynamic-pressure bearing as claimed in claim 1, wherein the thrust dynamic-pressure gap definition surface of the thrust plate has a hardness lower than that of the thrust dynamic-pressure gap definition surface of the second member.

4. The ceramic dynamic-pressure bearing as claimed in claim 1, wherein the first member, the second member, and the thrust plate are formed of an alumina ceramic comprising ceramic crystal grains which contains an Al component in an amount of 90-99.5% by mass as reduced to Al_2O_3 and an oxide-type sintering aid component in an amount of 0.5-10% by mass as reduced to an oxide thereof.

5. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein the alumina ceramic has an apparent density of 3.5-3.9 g/cm^3.

6. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein the alumina ceramic has a relative density of not less than 90%.

7. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein the ceramic crystal grains have an average grain size of 1-7 μm.

8. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein, on the dynamic-pressure gap definition surface formed of alumina ceramic, ceramic crystal grains having a grain size of 2-5 μm occupy an area percentage of not less than 40%.

9. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein the dynamic-pressure gap definition surface formed of alumina ceramic has surface pores having an average size greater than the average grain size of the ceramic crystal grains.

10. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein surface pores present on the dynamic-pressure gap definition surface have an average size of 2-20 μm.

11. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein, on the dynamic-pressure gap definition surface, surface pores having a size of 2-20 μm occupy an area percentage of 10-60%.

12. The ceramic dynamic-pressure bearing as claimed in claim 4, wherein ceramic forming the first member, the second member, and the thrust plate is a dense ceramic sintered body having a relative density of not less than 90%; and pores having a size of 2-20 μm present in the sintered body are localized mainly on the dynamic-pressure gap definition surface in the form of surface pores.

13. The ceramic dynamic-pressure bearing as claimed in claim 12, wherein the surface pores are formed as a result of ceramic crystal grains dropping off in the course of finishing the dynamic-pressure gap definition surface.

14. The ceramic dynamic-pressure bearing as claimed in claim 1, comprising dynamic-pressure grooves formed on at least one of the radial dynamic-pressure gap definition surfaces and the thrust dynamic-pressure gap definition surfaces

15. A hard disk drive comprising:

a motor including a motor rotation output section having a ceramic dynamic-pressure bearing comprising a first member formed of ceramic and

having a cylindrical outer surface, a second member formed of ceramic and having a cylindrical reception hole formed therein, the first member being inserted into the reception hole of the second member in such a manner as to be rotatable, relative to the second member, about an axis, and a thrust plate formed of ceramic facing at least one end face of the second member as viewed along the axis of rotation, the end face of the second member and a face of the thrust plate in opposition to the end face serving as thrust dynamic-pressure gap definition surfaces so as to define a thrust dynamic-pressure gap therebetween; and

a hard disk rotatably mounted on the motor;

the hard disk drive further characterized in that the ceramic dynamic-pressure bearing satisfies at least one of the following requirements (i) to (vi):

(i) the thrust dynamic-pressure gap definition surface of the second member which faces the thrust plate has a flatness of not greater than 3 μm;

(ii) the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member has a flatness of not greater than 3 μm;

(iii) the thrust dynamic-pressure gap definition surface of the second member which faces the thrust plate and the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member have a total flatness of not greater than 3 μm;

(iv) the thrust dynamic-pressure gap definition surface of the second

member which faces the thrust plate is crowned such that an inner circumferential portion thereof projects by an amount greater than 0 μm and not greater than 2.5 μm with respect to an outermost circumferential portion thereof;

(v) the thrust dynamic-pressure gap definition surface of the thrust plate which faces the second member is crowned such that an inner circumferential portion thereof projects by an amount greater than 0 μm and not greater than 2.5 μm with respect to an outermost circumferential portion thereof; and

(vi) a clearance between the mutually facing thrust dynamic-pressure gap definition surfaces of the second member and the thrust plate is greater than 0 μm and not greater than 2.5 μm as measured at outermost circumferential portions of the thrust dynamic-pressure gap definition surfaces.

16. The hard disk drive as claimed in claim 15, wherein an inner surface of the reception hole of the second member and an outer circumferential surface of the first member to be received inside the inner surface serve as radial dynamic-pressure gap definition surfaces, which define a radial dynamic-pressure gap therebetween.

17. The hard disk drive as claimed in claim 15, wherein the thrust dynamic-pressure gap definition surface of the thrust plate has a hardness lower than that of the thrust dynamic-pressure gap definition surface of the second member.

18. The hard disk drive as claimed in claim 15, wherein the first member, the second member, and the thrust plate are formed of an alumina ceramic comprising ceramic crystal grains which contains an Al component in an amount of 90-99.5% by mass as reduced to Al_2O_3 and an oxide-type sintering aid component in an amount of 0.5-10% by mass as reduced to an oxide thereof.

19. The hard disk drive as claimed in claim 18, wherein the alumina ceramic has an apparent density of 3.5-3.9 g/cm^3.

20. The hard disk drive as claimed in claim 18, wherein the alumina ceramic has a relative density of not less than 90%.

21. The hard disk drive as claimed in claim 18, wherein the ceramic crystal grains have an average grain size of 1-7 μm.

22. The hard disk drive as claimed in claim 18, wherein, on the dynamic-pressure gap definition surface formed of alumina ceramic, ceramic crystal grains having a grain size of 2-5 μm occupy an area percentage of not less than 40%.

23. The hard disk drive as claimed in claim 18, wherein the dynamic-pressure gap definition surface formed of alumina ceramic has surface pores having an average size greater than the average grain size of the ceramic crystal grains.

24. The hard disk drive as claimed in claim 18, wherein surface pores present on the dynamic-pressure gap definition surface have an average size of 2-20 μm.

25. The hard disk drive as claimed in claim 18, wherein, on the dynamic-pressure gap definition surface, surface pores having a size of 2-20 μm occupy an area percentage of 10-60%.

26. The hard disk drive as claimed in claim 18, wherein ceramic forming the first member, the second member, and the thrust plate is a dense ceramic sintered body having a relative density of not less than 90%; and

pores having a size of 2-20 μm present in the sintered body are localized mainly on the dynamic-pressure gap definition surface in the form of surface pores.

27. The hard disk drive as claimed in claim 26, wherein the surface pores are formed as a result of ceramic crystal grains dropping off in the course of finishing the dynamic-pressure gap definition surface.

28. The hard disk drive as claimed in claim 15, comprising dynamic-pressure grooves formed on at least one of the radial dynamic-pressure gap definition surfaces and the thrust dynamic-pressure gap definition surfaces.